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## A NEW SPECIES OF *NEPTICULA* ON BUR OAK IN ONTARIO (*NEPTICULIDAE*)

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DURING THE PAST FEW YEARS some officers of the Forest Insect Survey of Canada, Department of Forestry and Rural Development, have been studying an undescribed species of *Nepticula* v. Heyd. which is abundant on bur oak in the Lake Simcoe District of Ontario. The description is presented here to assist those officers in publishing the results of their investigations.

### ***Nepticula macrocarpae* sp. n.**

*General.* Face black. Vertex creamy yellow. Antenna blackish at base, gradually becoming ochreous toward apex. Eye-cap, thorax, base of fore wing, and median wing fascia creamy yellow. Median fascia broad, occupying about one-third of wing just before middle, and slightly wider on coastal and trailing margins. Remainder of wing brownish-black; apical fringe whitish; trailing fringe fuscous. Hind wing and fringe fuscous. Abdomen dull steel-grey dorsally, creamy yellow ventrally. Legs creamy yellow. Wing spread 4 mm. There are two generations each year. The moths occur in early June, and again in late July and early August.

*Male genitalia* (Fig. 1). Uncus heavily sclerotized, bilobed. Gnathos heavily sclerotized, M-shaped. Vinculum broadly arcuate laterally, truncate ventrally. Clasper broad, with apical tooth. Transtilla bifid, each arm subtriangular. Aedeagus broad, short, tubular; cornutus broad, arcuate.

*Female genitalia* (Fig. 2). Ovipositor lobes short, subconical. Apophyses short, thick. Ductus bursae membranous. Bursa with two bands of short stout teeth.

*Mine*. Upper side serpentine, about 2 cm. long and with a central frass line.

*Holotype*. Male, Orillia, Ontario, 12 August 1965. Forest Insect Survey No. S65-4100-01. No 9539 in the Canadian National Collection, Ottawa.

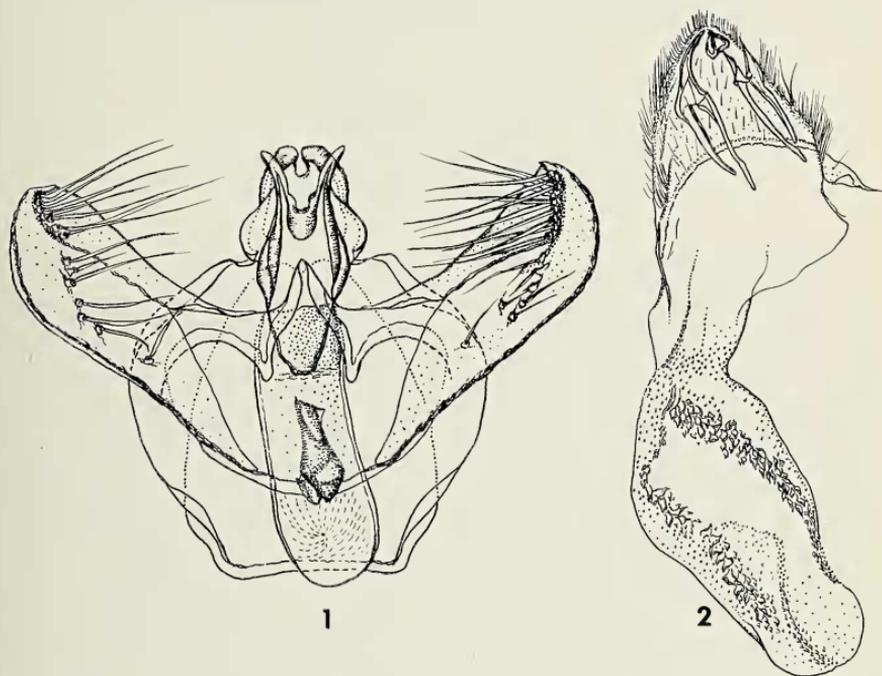
*Paratypes*. Seven males, thirteen females, same locality as holotype, August 12, 15, 30, 1965. All type material reared from *Quercus macrocarpa* Michx.

*Distribution*. Known only from Orillia, Ontario, but probably occurs elsewhere within the distribution of the host tree.

*Remarks*. This species will key to *latifasciella* Chambers in Braun's key in Forbes (1923, *Cornell Univ. Agr. Exp. Sta. Mem.* 68: 84). I have examined Chambers' type in the Museum of Comparative Zoology, Cambridge, Mass. It is a female securely glued to a paper point, and except for the thorax, is in good condition. There are several differences between it and *macrocarpa*. Firstly, Chambers collected his specimen in Kentucky from the bark of a sweet chestnut tree (*Castanea dentata* (Marsh.) Borkh.), the leaves of which contained many empty *Nepticula* mines. Secondly, there are significant colour differences as outlined below.

*N. latifasciella*. Face rusty-yellow. Vertex dark brown. Antenna silvery. Abdomen fuscous dorsally, pale greyish fuscous ventrally. Legs dark fuscous.

*N. macrocarpa*. Face black. Vertex creamy yellow. Antenna blackish basally, ochreous apically. Abdomen steel-grey dorsally, creamy yellow ventrally. Legs creamy yellow.



Figs. 1, 2.—Genitalia of *Nepticula macrocarpae* sp. n. 1, male. 2, female.